CLAIMS

At least the following is claimed:

1. A method of producing a three-dimensional object, comprising the step of:

forming an identifiable structure within the three-dimensional object, wherein the identifiable structure within the three-dimensional object can be detected using a non-invasive dimensional imaging device.

2. The method of claim 1, further comprising:

providing a build material and a contrast enhancing material, wherein the three-dimensional object is constructed of the build material, and wherein the identifiable structure is fabricated from the contrast enhancing material.

3. The method of claim 2, wherein forming includes:

disposing at least one layer of the build material onto a first area in an iterative manner;

disposing at least one layer of the contrast enhancing material and the build material onto the first area, wherein the contrast enhancing material being disposed onto a designated area, wherein the build material being disposed onto a second area, wherein the second area and the designated area are different areas of the first area;

forming the identifiable structure from at least one layer of the contrast enhancing material;

disposing at least one layer of the build material onto the second area and the designated area; and

forming the three-dimensional object.

4. The method of claim 3, further comprising:

forming a plurality of identifiable structures within the three-dimensional object.

5. The method of claim 1, further comprising:

providing a build material and a contrast enhancing material, wherein the three-dimensional object is constructed of the contrast enhancing material, and wherein the identifiable structure is fabricated from the build material.

6. The method of claim 1, wherein the identifiable structure is fabricated from a contrast enhancing material.

7. The method of claim 1, further comprising:

wherein the identifiable structure is fabricated from a contrast enhancing material and includes at least one air-gap within the identifiable structure, wherein the combination of the contrast enhancing material and the air-gap define structure selected from a letter, a number, a symbol, an icon, an emblem, a logo, a sign, a bar code, a reference mark, a unique shape, a pattern and combinations thereof.

8. The method of claim 1, wherein the non-invasive dimensional imaging device includes devices selected from X-ray devices, magnetic imaging devices, computerized axial tomography (CAT) scan devices, ultrasound devices, and computerized topography devices.

9. The method of claim 1, wherein the contrast enhancing material is selected from nano-particles, micro-particles, colorants, and combinations thereof.

10. The method of claim 1, wherein the identifiable structure is selected from a letter, a number, a symbol, an icon, an emblem, a logo, a sign, a bar code, a reference mark, a unique shape, a pattern and combinations thereof.

11. The method of claim 1, further comprising:

wherein the identifiable structure is a void, wherein the void defines the identifiable structure selected from a letter, a number, a symbol, an icon, an emblem, a logo, a sign, a bar code, a reference mark, a unique shape, a pattern and combinations thereof.

12. A three-dimensional object produced by the method of claim 1.

13. The three-dimensional object of claim 12, wherein the three-dimensional object being a bone replacement

14. The three-dimensional object of claim 13, wherein the three-dimensional object being a security device.

15. A three-dimensional object produced by the method of claim 11.

16. A system for producing a three-dimensional object, comprising:

a dispensing system including a build material and a contrast enhancing material;

a layer forming system operative to:

form an identifiable structure, wherein the identifiable structure can be detected using a non-invasive dimensional imaging device, and

form the three-dimensional object, wherein the identifiable structure is disposed within the three-dimensional structure.

17. The system of claim 16, wherein the identifiable structure is fabricated from the contrast enhancing material.

18. The system of claim 16, wherein the identifiable structure is a void.

19. The system of claim 16, wherein the identifiable structure is selected from a letter, a number, a symbol, an icon, an emblem, a logo, a sign, a bar code, a reference mark, a unique shape, a pattern and combinations thereof.

20. The system of claim 16, wherein the three-dimensional object being a bone replacement.

21. The system of claim 16, wherein the three-dimensional object being a security device.

22. A method of identifying a three-dimensional object, comprising:

providing the three-dimensional object having an identifiable structure disposed within the three-dimensional object;

viewing the identifiable structure within the three-dimensional object using a non-invasive dimensional imaging device.

23. The method of claim 22, wherein the three-dimensional object is disposed within a human subject.

24. The method of claim 23, wherein the three-dimensional object is selected from a bone replacement and a joint replacement.

25. The method of claim 22, wherein the identifiable structure is selected from a letter, a number, a symbol, an icon, an emblem, a logo, a sign, a bar code, a reference mark, a unique shape, a pattern and combinations thereof.